# **BookletChart**<sup>TM</sup>

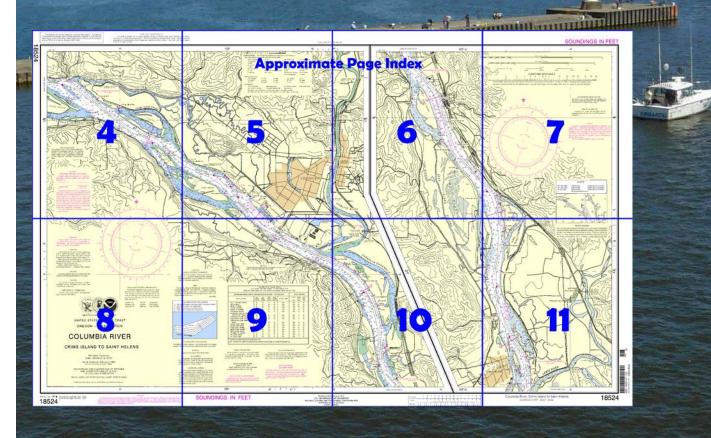
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# Columbia River – Crims Island to Saint Helens NOAA Chart 18524

A reduced-scale NOAA nautical chart for small boaters When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



# Published by the National Oceanic and Atmospheric Administration National Ocean Service Office of Coast Survey

<u>www.NauticalCharts.NOAA.gov</u> 888-990-NOAA

# What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

# What is a BookletChart<sup>™</sup>?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

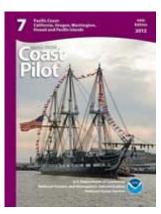
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <a href="http://www.NauticalCharts.NOAA.gov">http://www.NauticalCharts.NOAA.gov</a>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

# **Notice to Mariners Correction Status**

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <a href="http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185">http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185</a> <a href="http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185">http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185</a> <a href="http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185">http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185</a> <a href="http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185">http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185</a> <a href="http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185">http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185</a> <a href="http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185">http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185</a> <a href="http://www.nauticalcharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbychart.php?chart=185">http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185</a> <a href="http://www.nauticalcharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa



(Selected Excerpts from Coast Pilot)
Between Crims Island and Saint
Helens, Mile 75 (86), the main channel
starts its SE swing, passing S of Fisher
Island and Hump Island, and N
of Walker Island and Lord Island;
thence, under the Longview fixed
bridge, thence W of Cottonwood
Island, E of Sandy Island, and W
of Martin Island and Burke Island.
Numerous jetties along this stretch are
usually marked by lights or
daybeacons.

Currents.—In this section, the average

velocity on the ebb is 2.0 knots. Flood currents can be experienced at low river levels after spring freshet and until the fall rainy season.

**Coal Creek Slough**, at Mile 48.9 (56.3) on the Washington side, empties into the river at **Stella**. The slough is used for moorage of small craft. It was also used for log storage, and piling and related structures present hazards close to shore. Power cables over the deeper part of the slough have a least clearance of 65 feet.

**Fisher Island Slough**, N of Fisher Island, is used as the Longview Yacht Basin, by small fishing vessels, and as log-storage grounds. A depth of 7 feet may be carried through the channel. Remnants of log storage grounds may still be found throughout the transit.

The channel between Walker Island and the Oregon shore is used for log-raft storage. The power cables S of Lord Island have a least clearance of 115 feet.

The **Lewis and Clark Bridge**, at Mile 57.3 (66.0) between Longview and Rainier, has a fixed span with a clearance of 187 feet. The bridge piers are marked by buoys.

Vessel Arrival Reports.—The Washington State Department of Ecology requires that all tank vessels, and certain cargo and passenger vessels, submit an Advanced Notice of Entry (ANE) Report at least 24 hours prior to entering Washington waters.

A Safety Report must be submitted with an Advance Notice of Entry, or, if the condition occurs after submittal of an ANE the Department must be notified immediately by phone or facsimile of the condition. To inquire or submit vessel information, vessel owners or operators may contact the Washington State Department of Ecology by calling 24 hours, 503-790-4868 (Columbia River and Grays Harbor) or 360-956-8378 (Strait of Juan de Fuca and Puget Sound). Facsimile Safety Reports should be sent to 1-800-664-9184 or 360-407-7288.

Cargo, passenger, fishing and tank vessels are subject to boarding by Washington State Department of Ecology inspectors when in port. Tank vessels are required to have a Tank Vessel Oil Spill Prevention Plan on file with Ecology or must obtain a waiver prior to entering Washington State waters. Washington State also has safe bunkering procedures that must be followed during fuel transfers. For more information contact Ecology by calling 24 hours, 503-790-4868 (Columbia River and Grays Harbor) or 360-956-8378 (Strait of Juan de Fuca and Puget Sound). **To report oil spills call 1-800-258-5990.** 

Caution.—The volcanic eruptions of Mount Saint Helens in mid-1980 caused extensive flooding with resulting heavy siltation in the lower Columbia River. Large amounts of mud, logs, and other debris entered Columbia River from Cowlitz River, just E of Longview at Mile 59 (68). In late 1980, dredging was done in the aforementioned area, however, mariners are advised to use caution in the Columbia River and its tributaries. Self-propelled hopper dredges, dredge barges and pipeline dredges may be encountered throughout the transit from sea to Bonneville Dam. Mariners should contact these vessels on VHF-FM channel 13 to make passing arrangements, and navigate with due caution through these areas.

**Anchorages.**—Deep-draft vessels may anchor NW of Lewis and Clark Bridge between the main ship channel and the smaller channel N of the main ship channel. (See **110.1** and **110.228**, chapter 2, for limits and regulations.) A secondary anchorage, SE of the bridge and just S of the main ship channel, may also be used. Depths in these anchorages range from 30 to 38 feet. Care should be exercised not to obstruct the dredged channels.

# U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Seattle Commander

13<sup>th</sup> CG District (206) 220-7001 Seattle, WA

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# NOTE Lights "A" through "H" show FI Y 4 and are privately maintained.

## HEIGHTS

Heights in feet above Mean High Water.

# LOCAL MAGNETIC DISTURBANCE

Differences of as much as 8° from the norma ariation have been observed along this section of the Columbia River.

# SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine ables and submarine pipeline and cable areas are shown as:

Cable Area Pipeline Area

Additional uncharted submarine pipelines and submarine cables may exist within the area of his chart. Not all submarine pipelines and sub-narine cables are required to be buried, and hose that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where ipelines and cables may exist, and wher nchoring, dragging, or trawling.

Covered wells may be marked by lighted or

# AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

The prudent mariner will not rely solely on single aid to navigation, particularly or ting aids. See U.S. Coast Guard Light Lis I U.S. Coast Pilot for details.

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

should be used with caution.

Station positions are shown thus:

(Accurate location) o(Approximate location)

# CAUTION

# BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance

# CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

# RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

# AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey with additional data from the Corps of Engineers, Geological Survey and U.S. Coast Guard.

# LOG STORAGE AREAS-CAUTION

The limits of log storage areas are variable and only known areas are shown on this chart. Mariners should exercise caution in these areas.

# HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.5781 southward and 4.3601 westward to agree with this chart.

# **Table of Selected Chart Notes**

# NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Astoria, OR KFC-91 162 400 MHz Portland, OR Olympia, WA KIG-98 WXM-62 162.550 MHz 162.475 MHz

# STATUTE MILES COLUMBIA RIVER

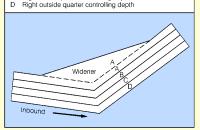
Mileage distances along the Columbia River are Statute Miles. Distances along the Columbia River are eastward from the mouth, and are indicated thus: Tables for converting Statute Miles to International Nautical iles are given in Coast Pilot 7.

### TIDES

The diurnal range of the tide during low river stages is 4.9 feet at Stella (46°11"\/123°07"\/W), 4.0 feet at Longview (46°06'\/122°57'\/W), and 2.5 feet at Saint Helens (45°52'\/W), 122°48'\/W). The range becomes progressively smaller with higher stages of the river.

# COLUMBIA RIVER TAB DIAGRAM

- Left outside quarter controlling depth (including widener)
  Left inside quarter controlling depth
  Right inside quarter controlling depth



## COLUMBIA RIVER TAB DIAGRAM

Columbia River main channel - Controlling depths for outside quarters include the adjacent widener/fillet when applicable

# SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

> Mercator Projection Scale 1:40,000 at Lat. 46°02'

North American Datum of 1983 (World Geodetic System 1984)

SOUNDINGS AND CLEARANCES OF BRIDGES AND OVERHEAD CABLES IN FEET AT COLUMBIA RIVER DATUM

(MEAN LOWER LOW WATER DURING LOWEST RIVER STAGES)

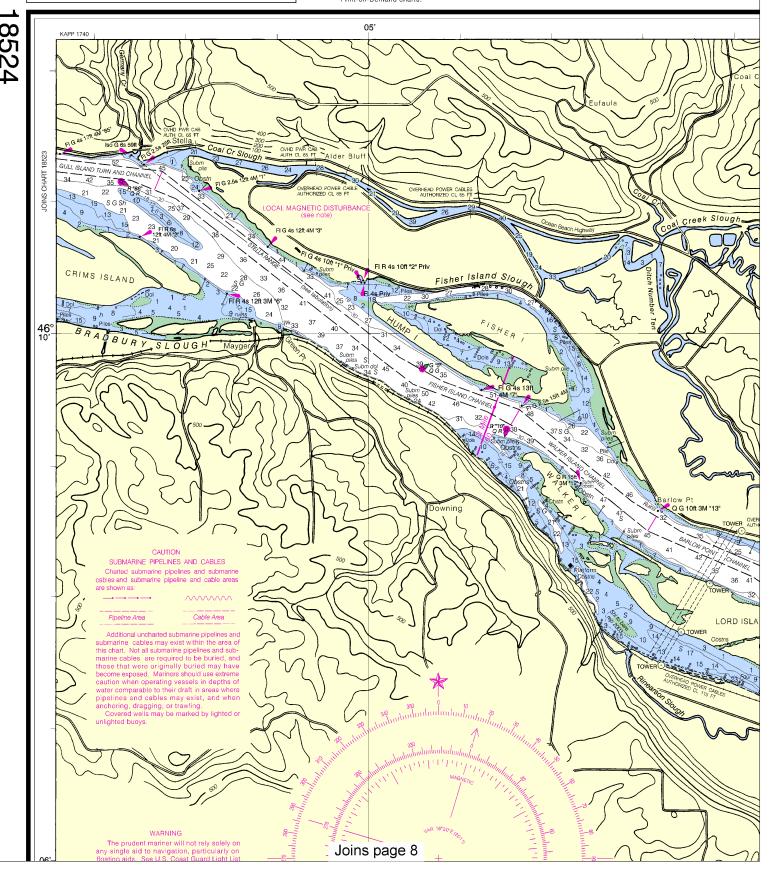
			JMBIA RIVER CHAN		-			
			URN AND CHANNE					
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF						21-Nov-12		
CONTROLLING DEPTHS IN FEET AT COLUMBIA RIVER DATUM (CRD) * SEE FOOT						PROJECT DIMENSIONS		
	Left	Left	Right	Right	Date		Length	
NAME OF CHANNEL	Outside	Inside	Inside	Outside	of	Width	STAT	Depth
	Quarter	Quarter	Quarter	Quarter	Survey	(Feet)	(Miles)	(Feet)
Gull Island Turn and Channel	47	48	45	35	5-Nov-12	600	2.2	43
Stella Range	40	43	43	42	5-Nov-12	600	3.0	43
Fisher Island Channel	44	45	45	41	29-Oct-12	600	8.0	43
Walker Island Channel	44	44	45	44	29-Oct-12	600	1.4	43
Barlow Pt Channel	47	48	48	44	29-Oct-12	600	1.6	43
Slaughters Channel	42	43	42	42	30-Oct-12	600	2.2	43
Slaughters Turn and Channel	40	43	43	40	30-Oct-12	600	1.7	43
Cottonwood Island Lower Rge	42	44	42	43	18-Oct-12	600	1.7	43
Cottonwood Island Turn	45	44	44	40	29-Oct-12	600	2.7	43
Cottonwood Island Upper Rge	43	43	46	43	29-Oct-12	600	1.6	43
Kalama Lower Range	43	47	42	35	23-Oct-12	600	1.8	43
Kalama Upper Range	39	43	43	41	23-Oct-12	600	2.2	43
Bybee Ledge Channel	41	43	43	41	7-Oct-12	600	2.1	43
Martin Island Channel	42	43	42	39	19-Nov-12	600	2	43
Martin Island Range	42	43	44	42	19-Nov-12	600	1.4	43
Columbia City Channel	40	43	43	41	19-Nov-12	600	1.2	43
St. Helens Range	41	42	43	39	19-Nov-12	600	2.0	43
St. Helens Turn	42	44	43	38	19-Nov-12	600	1.7	43

District US Army Corps of Engineers website: http://www.nwp.usace.army.mil/Missions/Navigation.aspx

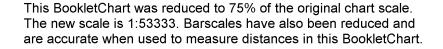
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

### PRINT-ON-DEMAND CHARTS

This chart is available in a version updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 2-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts.



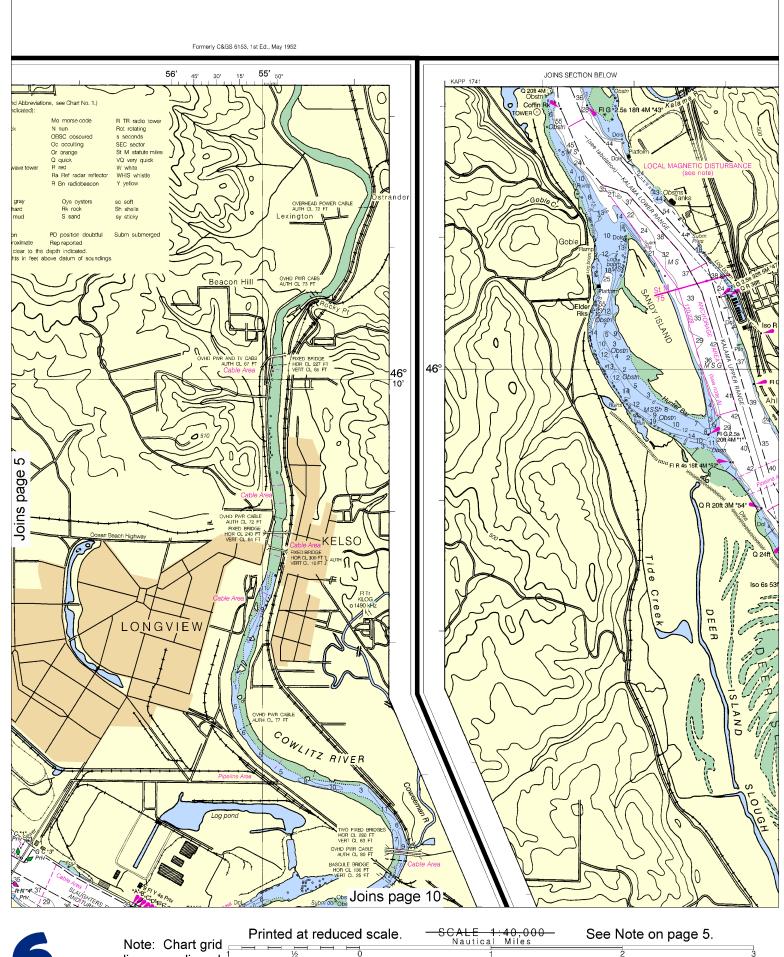
CALE 1:40,000 Nautical Miles See Note on page 5. Printed at reduced scale. Yards 1000 0 1000 4000 5000 with true north. 2000 3000

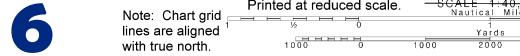


Joins page 9

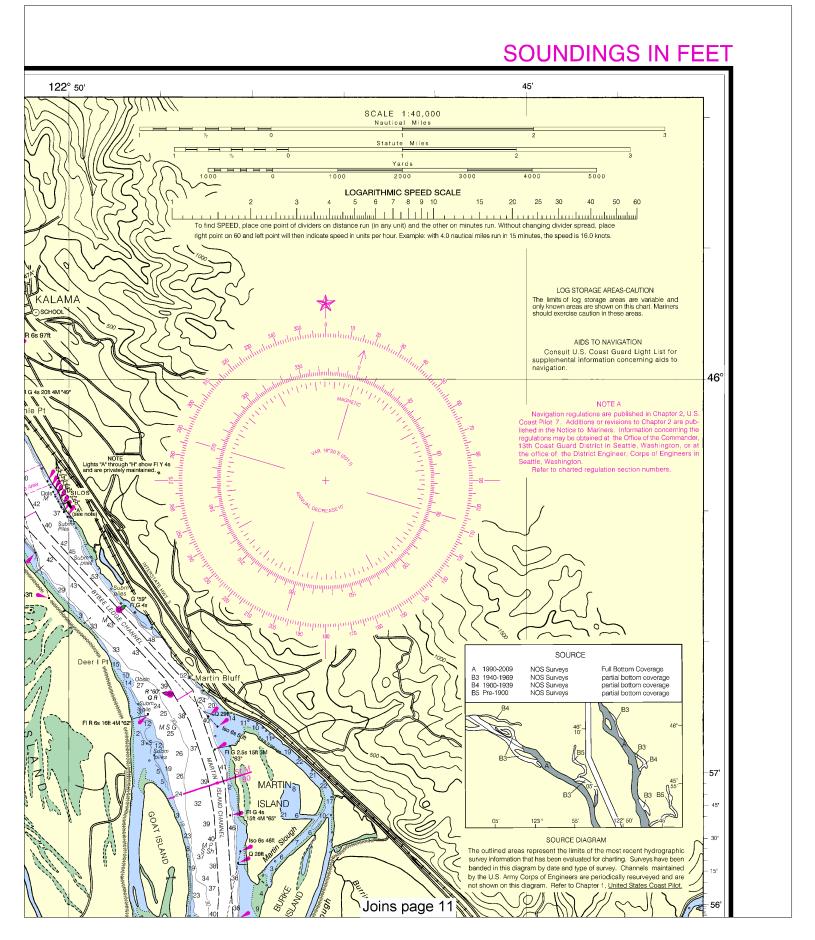
Log pond

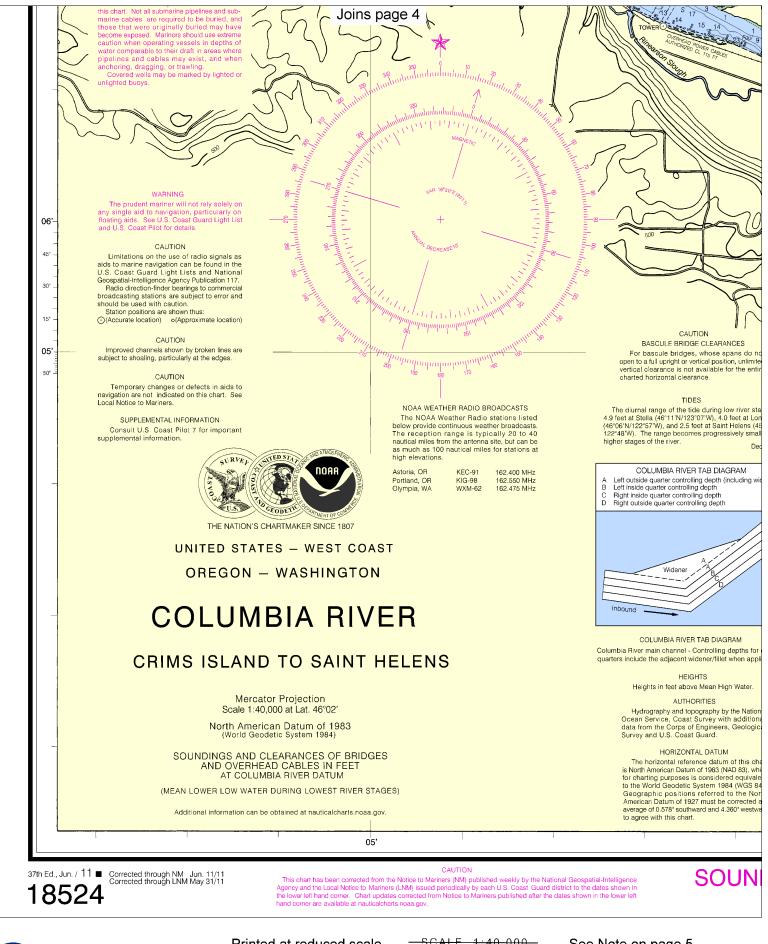
OVHD PWR CABLE AUTH CL 80 FT













Note: Chart grid lines are aligned with true north.

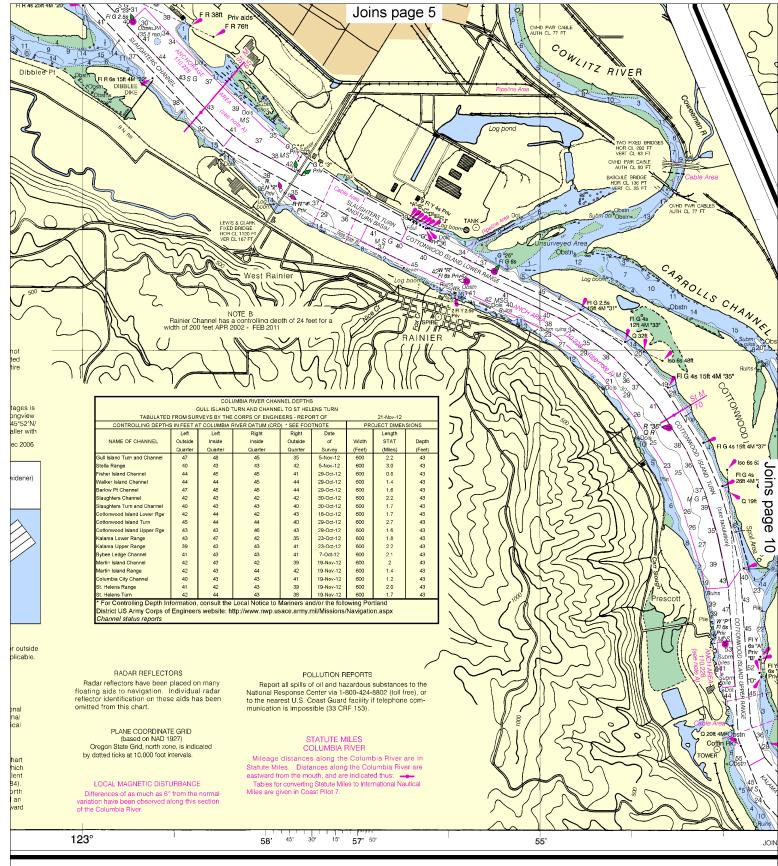
Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.

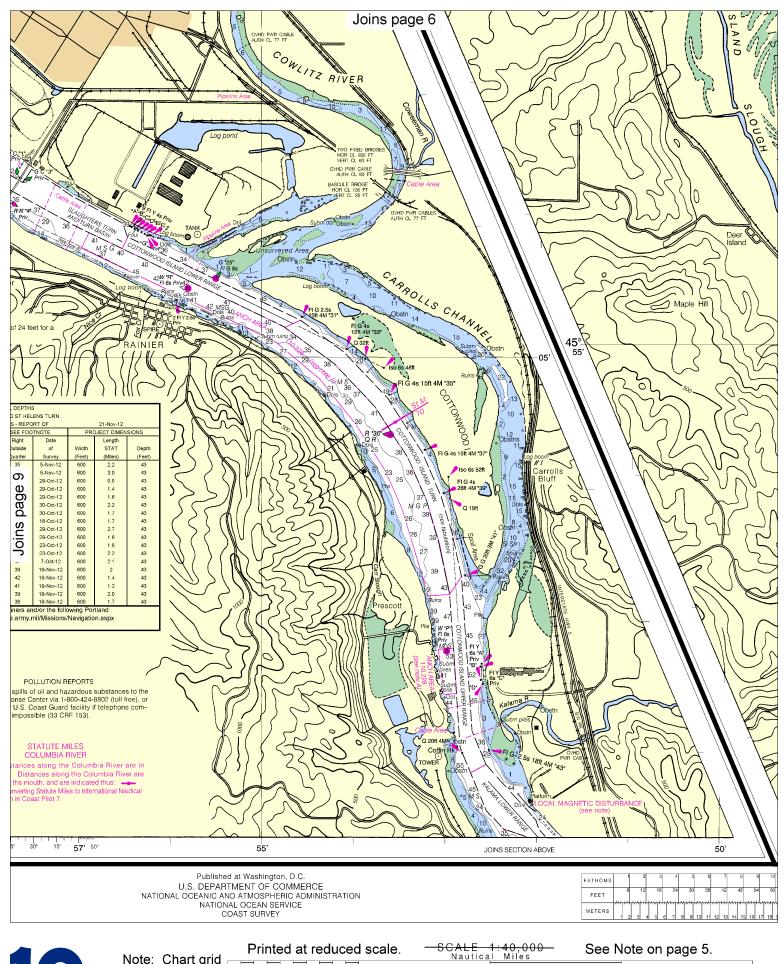
Yards

1000 0 1000 2000 3000 4000 5000



# IDINGS IN FEET

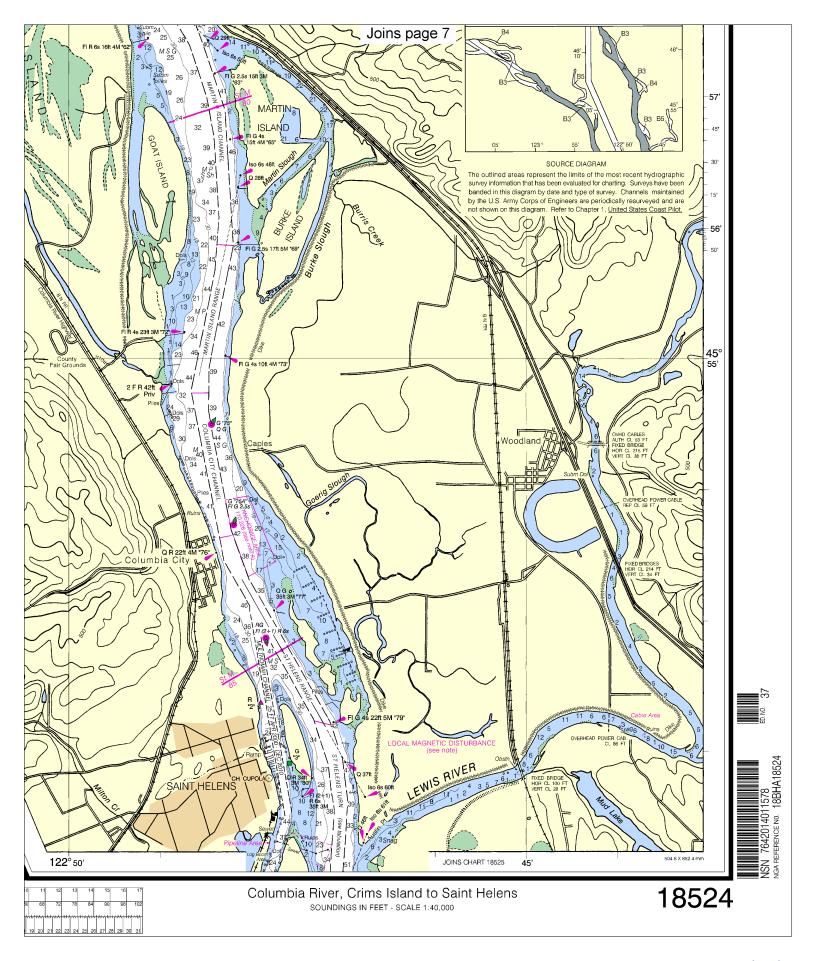
Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY



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Printed at reduced scale. SCALE 1:40,000 See Note on page 5.

Note: Chart grid lines are aligned with true north.





# VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here. Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

# **Distress Call Procedures**

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of

Emergency; Number of People on Board.

- · Release transmit button.
- Wait for 10 seconds If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

http://www.nws.noaa.gov/nwr/

# **Quick References**

Nautical chart related products and information — http://www.nauticalcharts.noaa.gov

Online chart viewer — <a href="http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html">http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html</a>

Report a chart discrepancy — http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx

Chart and chart related inquiries and comments — http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs

Chart updates (LNM and NM corrections) — http://www.nauticalcharts.noaa.gov/mcd/updates/LNM\_NM.html

Coast Pilot online — http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm

Tides and Currents — http://tidesandcurrents.noaa.gov

Marine Forecasts — http://www.nws.noaa.gov/om/marine/home.htm

National Data Buoy Center — http://www.ndbc.noaa.gov/

NowCoast web portal for coastal conditions — http://www.nowcoast.noaa.gov/

National Weather Service — http://www.weather.gov/

National Hurrican Center — http://www.nhc.noaa.gov/

Pacific Tsunami Warning Center — http://ptwc.weather.gov/

Contact Us — http://www.nauticalcharts.noaa.gov/staff/contact.htm



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